

9231-CDLF-

92-31

Carmen Johnson 92-31

Scanned by <i>[Signature]</i>	Date <i>10/8/12</i>	Doc ID # <i>RCO</i>
-------------------------------	---------------------	---------------------

NOTE:

The attached letter should replace the letter dated September 12, 2003, of same reference, sent to your attention. The original letter stated that there were two surface water monitoring points for the Brown-Field Road facility. There are actually three points as correctly stated in this revised letter.

I apologize for the inconvenience.

Dan Brown



MRR Southern, LLC
2005 Rolling Road
Greensboro, NC 27403
Phone (336) 230-0896 Fax (336) 378-1945

October 3, 2003

Ms. Ellen B. Lorscheider, Hydrogeologist
DENR-Division of Waste Management
Solid Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646

**RE: Post Construction Hydrogeologic Inspection/Certification-Phase 1, Cell A;
Well Abandonment Certification (P-5, Well-28, -28A, -28B, & -28C); and
Permit to Construct Clarifications Related to Groundwater Monitoring
Material Recovery, LLC C&D Landfill, Wake County
Permit No. 92-31**

Dear Ellen:

The purpose of this letter is to provide written documentation and certifications related to inspection of the referenced facility's constructed subgrade for Phase 1-Cell A; and to provide records associated with additional well abandonment activities which have taken place at the site. Additionally, I would like to draw your attention to two permit conditions which need clarification in the *Monitoring and Reporting Requirements* stated facility's Permit to Construct. These issues are discussed in the final paragraph of this letter.

Hydrogeologic Subgrade Inspection: Pre-Operational Condition 8.e. of our Permit to Construct dated January 31, 2003, states that the following must take place prior to issuance of a Permit to Operate: "*Inspection and certification of the Phase 1 subgrade, by the project Hydrogeologist, to determine if subgrade conditions are consistent with the observations made during the initial site investigations and information provided in the site hydrogeology.*" As you are aware, on September 4, 2003, you and I conducted an inspection of the Phase 1, Cell A subgrade area prior to the placement of C&D waste. Please accept this letter as my certification that the subgrade was well prepared and exhibited no unusual geologic conditions that would be judged to impact the long-term stability of the subsoils, or potential flow of vadose waters and/or groundwater.

Well Abandonment: Attached to this letter are abandonment records for five monitoring wells (designated P-5, Well-28, -28A, -28B, and -28C) located at the referenced facility. Rachel Kirkman of Joyce Engineering submitted abandonment records for several other wells at this site in a letter to your attention dated April 3, 2003. The additional abandonments discussed in this letter were necessary based on construction and grading activities which took place subsequent to the initial abandonments.

Ms. Ellen Lorscheider

September 12, 2003

Page 2 of 3

Please accept this letter as my certification of proper well abandonment as required by 15A NCAC 13B Rule .1623 § (b)(2)(I). Abandonment was performed in accordance with 15A NCAC 2C Rule .0113 § (a)(2). The abandonment activities were performed under my direction on July 7, 2003 by N.W. Poole Well and Pump Company, a NC Certified Drilling Contractor. As the referenced wells were located in areas outside of the proposed waste disposal footprint, abandonment consisted of grouting the well casing/riser pipe annulus, from bottom to top utilizing a tremie-pipe. The individual well abandonment records (DWQ form GW-30) for each well are provided as attachments to this letter.



Phase 1, Cell A on September 4, 2003

Permit Clarifications: In review of the *Monitoring and Reporting Requirements* associated with the Permit to Construct there are two conditions which need clarification. Condition No. 14.b should be clarified to be consistent with the approved Groundwater Monitoring Plan, indicating that wells MW-1 thru MW-5 shall be utilized as compliance wells for the northern disposal area. Wells MW-6 and MW-7 are to be added as compliance monitoring points following construction of the southern disposal area. These monitoring issues are discussed in section 4.2.1 (Background and Compliance Monitoring Wells) of the *Hydrogeologic Report and Groundwater Monitoring Plan-Volume 1-Section II*. Also, in this condition it is stated that there are four surface water monitoring points, SW-1 thru SW-4. In section 4.4 of the Plan referenced above, there are only three proposed surface water points, SW-1, SW-2, and SW-3. The four surface points are also referenced in permit condition 14.h.

WELL ABANDONMENT RECORD

WELL CONTRACTOR N.W. Poole Well Pump
WELL CONTRACTOR CERTIFICATION # 3133

1. WELL USE (Check Applicable Box): Residential ☐ Municipal ☐ Industrial ☐ Agricultural ☐ Monitoring ☒
Recovery ☐ Heat Pump Water Injection ☐ Other ☐ If Other, List Use: _____

2. WELL LOCATION: (Show a sketch of the location on back of form.)
Nearest Town: RALEIGH County WAKE
2600 BRUNFIELD RD
(Road Name and Number, Community, Subdivision, Lot No.)

3. OWNER: D.H. GRIFFIN Const Co. Quadrangle No. _____

4. ADDRESS: 421 RALEIGH VIEW RD RALEIGH

5. TOPOGRAPHY: draw, slope, (hilltop, valley, flat (check one))

6. TOTAL DEPTH: 40' DIAMETER 2"

7. CASING REMOVED:
feet NA diameter _____

8. DISINFECTION: NONE
(Amount of 70% hypochlorite used:)

9. SEALING MATERIAL:
Neat Cement bags of cement 1/2 Sand Cement bags of cement _____
gallons of water 4 GALL. gallons of water _____
Other Type material BEYTONK MIX Amount 1 BAG

10. EXPLAIN METHOD EMPLACEMENT OF MATERIAL.
Trim Grout

11. DATE WELL ABANDONED 7/7/03

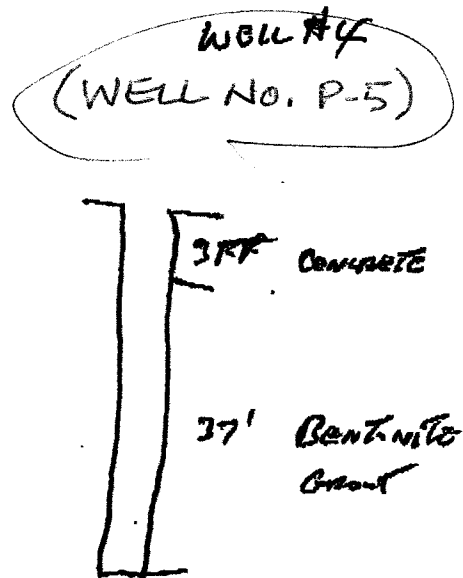
I do hereby certify that this well was abandoned in accordance with 15A NCAC 2C, well construction standards, and that a copy of the record has been provided to the well owner.

Signature of person abandoning the well Timothy R. [Signature] Date 7-9-2003

WELL LOCATION: Draw a location sketch on the reverse of this sheet, showing the direction and distance of the well to at least two (2) nearby reference points such as roads, intersections and streams. Identify roads with State Highway road identification numbers.

Submit original to the Division of Water Quality, Groundwater Section, one copy to the owner within 30 days from completion of abandonment.

WELL DIAGRAM: Draw a detailed sketch of the well showing total depth, depth and diameter of screens remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

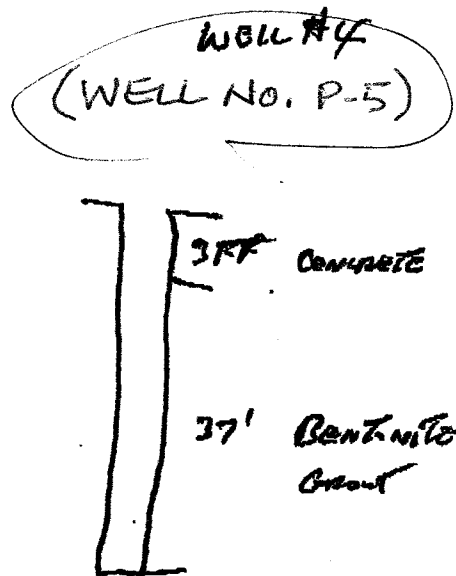


WELL ABANDONMENT RECORD

WELL CONTRACTOR N.W. Poole Well Pump
WELL CONTRACTOR CERTIFICATION # 3123

1. WELL USE (Check Applicable Box): Residential ☐ Municipal ☐ Industrial ☐ Agricultural ☐ Monitoring ☒
Recovery ☐ Heat Pump Water Injection ☐ Other ☐ If Other, List Use: _____
2. WELL LOCATION: (Show a sketch of the location on back of form.)
Nearest Town: RALEIGH County WAKE
2600 BRUNNFIELD RD
(Road Name and Number, Community, Subdivision, Lot No.)
Quadrangle No. _____
3. OWNER: D.H. GRIFFIN Const Co.
4. ADDRESS: 421 RALEIGH VIEW RD RALEIGH
5. TOPOGRAPHY: draw, slope, (hilltop, valley, flat (circle one))
6. TOTAL DEPTH: 40' DIAMETER 2"
7. CASING REMOVED:
feet NA diameter _____
8. DISINFECTION: NONE
(Amount of 70% hypochlorite used:)
9. SEALING MATERIAL:
Neat Cement
bags of cement 1/2 Sand Cement
gallons of water 4 GALLONS bags of cement _____
gallons of water _____
Other
Type material BEYTON'S MIX
Amount 1 BAG
10. EXPLAIN METHOD EMPLACEMENT OF MATERIAL.
Thin Grout
11. DATE WELL ABANDONED 7/7/03

WELL DIAGRAM: Draw a detailed sketch of the well showing total depth, depth and diameter of screens remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.



I do hereby certify that this well was abandoned in accordance with 15A NCAC 2C, well construction standards, and that a copy of the record has been provided to the well owner.

Signature of person abandoning the well Timothy R. Hatcher Date 7-9-2003

WELL LOCATION: Draw a location sketch on the reverse of this sheet, showing the direction and distance of the well to at least two (2) nearby reference points such as roads, intersections and streams. Identify roads with State Highway road identification numbers.

Submit original to the Division of Water Quality, Groundwater Section, one copy to the owner within 30 days from completion of abandonment.

WELL ABANDONMENT RECORD

WELL CONTRACTOR N.W. Poole
 WELL CONTRACTOR CERTIFICATION # 3133

1. WELL USE (Check Applicable Box): Residential ☐ Municipal ☐ Industrial ☐ Agricultural ☒ Monitoring ☐
 Recovery ☐ Heat Pump Water Injection ☐ Other ☐ If Other, List Use: _____

2. WELL LOCATION: (Show a sketch of the location on back of form.)
 Nearest Town: RALEIGH County WAKE
 (Road Name and Number, Community, Subdivision, Lot No.) 2600 BROWNFIELD Rd

3. OWNER: D.H. GRIFFIN Quadangle No. _____

4. ADDRESS: 44 RALEIGH RD RALEIGH

5. TOPOGRAPHY: draw, slope, hilltop, valley, flat (check one)

6. TOTAL DEPTH: 30' DIAMETER 6 1/4"

7. CASING REMOVED:
3' feet diameter 6 1/4"

8. DISINFECTION: YES 1/2 LBS.
 (Amount of 70% hypochlorite used:)

9. SEALING MATERIAL:
 Neat Cement bags of cement 1 Sand Cement bags of cement _____
 gallons of water 10 gallons of water _____
 Other Type material PORTLAND MIX
 Amount 3 BAGS

10. EXPLAIN METHOD EMPLACEMENT OF MATERIAL.
THIN GRANT

11. DATE WELL ABANDONED 7/7/03

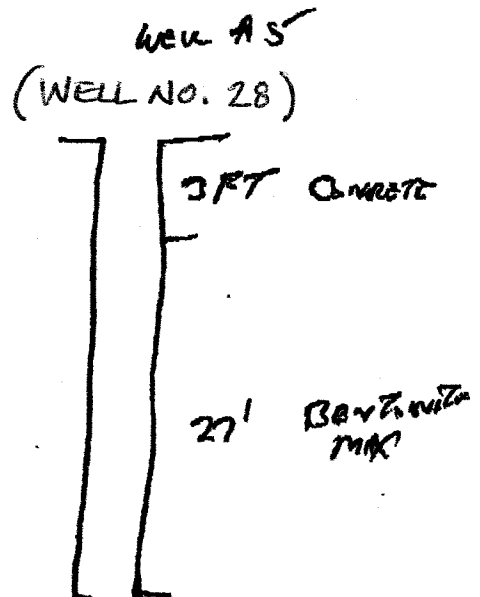
I do hereby certify that this well was abandoned in accordance with 15A NCAC 2C, well construction standards, and that a copy of the record has been provided to the well owner.

Signature of person abandoning the well Timothy R. Patterson Date 7-9-2003

WELL LOCATION: Draw a location sketch on the reverse of this sheet, showing the direction and distance of the well to at least two (2) nearby reference points such as roads, intersections and streams. Identify roads with State Highway road identification numbers.

Submit original to the Division of Water Quality, Groundwater Section, one copy to the owner within 30 days from completion of abandonment.

WELL DIAGRAM: Draw a detailed sketch of the well showing total depth, depth and diameter of screens remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.



WELL ABANDONMENT RECORD

WELL CONTRACTOR North Pole Well & Pump
WELL CONTRACTOR CERTIFICATION # 5123

1. WELL USE (Check Applicable Box): Residential ☐ Municipal ☐ Industrial ☐ Agricultural ☐ Monitoring ☒
Recovery ☐ Heat Pump Water Injection ☐ Other ☐ If Other, List Use: _____

2. WELL LOCATION: (Show a sketch of the location on back of form.)
Nearest Town: RALEIGH County WAKE
2400 BEAN FIELD Rd. RALEIGH
(Road Name and Number, Community, Subdivision, Lot No.)

3. OWNER: D.H. GRIFFIN Const. Co. Quadrangle No. _____

4. ADDRESS: 24 RALEIGH NEW Rd. RALEIGH

5. TOPOGRAPHY: draw, slope, hilltop, valley, flat
(check one)

6. TOTAL DEPTH: 40' DIAMETER 2"

7. CASING REMOVED:
feet N/A diameter _____

8. DISINFECTION: NONE
(Amount of 70% hypochlorite used:)

9. SEALING MATERIAL:
Neat Cement
bags of cement 1/2 Sand Cement
gallons of water 4000 bags of cement
Other
Type material BENTONITE MIX
Amount 1 BAG

10. EXPLAIN METHOD EMPLACEMENT OF MATERIAL.
TRIM GRout

11. DATE WELL ABANDONED 7/7/03

I do hereby certify that this well was abandoned in accordance with 15A NCAC 2C, well construction standards, and that a copy of the record has been provided to the well owner.

Signature of person abandoning the well Timothy F. Hildreth Date 7-9-2003

WELL LOCATION: Draw a location sketch on the reverse of this sheet, showing the direction and distance of the well to at least two (2) nearby reference points such as roads, intersections and streams. Identify roads with State Highway road identification numbers.

Submit original to the Division of Water Quality, Groundwater Section, one copy to the owner within 30 days from completion of abandonment.

WELL DIAGRAM: Draw a detailed sketch of the well showing total depth, depth and diameter of screens remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

Well # 3
(WELL NO. 28A)
3FT Concrete MIX
37 FT Bentonite Grout

WELL ABANDONMENT RECORD

WELL CONTRACTOR N.W. Poole Well & Pump
WELL CONTRACTOR CERTIFICATION # 3133

1. WELL USE (Check Applicable Box): Residential ☐ Municipal ☐ Industrial ☐ Agricultural ☐ Monitoring ☒
Recovery ☐ Heat Pump Water Injection ☐ Other ☐ If Other, List Use: _____

2. WELL LOCATION: (Show a sketch of the location on back of form.)
Nearest Town: RALEIGH County WAKE
2600 DAWNSIDE RD, RALEIGH
(Road Name and Number, Community, Subdivision, Lot No.)

3. OWNER: Dick Griffin Const. Co. Quadrangle No. _____

4. ADDRESS: 421 RALEIGH, NEW RD, RALEIGH, NC

5. TOPOGRAPHY: draw, slope, hilltop, valley, flat
(circle one)

6. TOTAL DEPTH: 40' DIAMETER 2"

7. CASING REMOVED:

feet N/A diameter _____

8. DISINFECTION: NONE
(Amount of 70% hypochlorite used:)

9. SEALING MATERIAL:

Neat Cement
bags of cement 1/2 Sand Cement
gallons of water 4 GALS bags of cement _____
gallons of water _____

Other
Type material BENTONITE MUD
Amount 1 BAG

10. EXPLAIN METHOD EMPLACEMENT OF MATERIAL.
TRIM GRout

11. DATE WELL ABANDONED 7/7/03

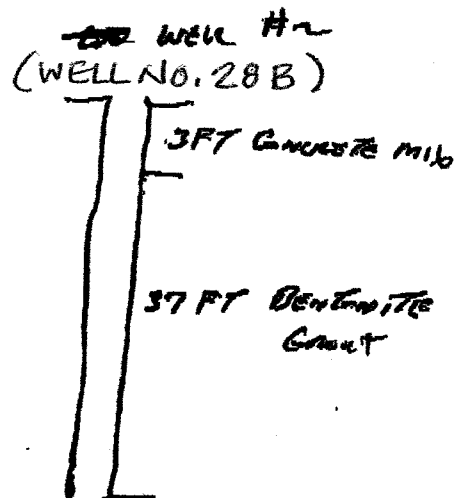
I do hereby certify that this well was abandoned in accordance with 15A NCAC 2C, well construction standards, and that a copy of the record has been provided to the well owner.

Signature of person abandoning the well Timothy R. [Signature] Date 7-9-2003

WELL LOCATION: Draw a location sketch on the reverse of this sheet, showing the direction and distance of the well to at least two (2) nearby reference points such as roads, intersections and streams. Identify roads with State Highway road identification numbers.

Submit original to the Division of Water Quality, Groundwater Section, one copy to the owner within 30 days from completion of abandonment.

WELL DIAGRAM: Draw a detailed sketch of the well showing total depth, depth and diameter of screens remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.



WELL ABANDONMENT RECORD

WELL CONTRACTOR

N.W. Poole Well & Pump

WELL CONTRACTOR CERTIFICATION #

3133

1. WELL USE (Check Applicable Box): Residential ☐ Municipal ☐ Industrial ☐ Agricultural ☐ Monitoring ☒
Recovery ☐ Heat Pump Water Injection ☐ Other ☐ If Other, List Use: _____

2. WELL LOCATION: (Show a sketch of the location on back of form.)
Nearest Town: RALEIGH

County Wake

2600 Brown Field Rd. Raleigh, NC
(Road Name and Number, Community, Subdivision, Lot No.)

Quadrangle No. _____

3. OWNER: D.H. Griffin Const. Co.

4. ADDRESS: 424 Raleigh View Rd. Raleigh

5. TOPOGRAPHY: draw, slope, (hilltop) valley, flat
(circle one)

6. TOTAL DEPTH: 40' DIAMETER 2"

7. CASING REMOVED:

feet NA diameter _____

8. DISINFECTION: None
(Amount of 70% hypochlorite used:)

9. SEALING MATERIAL:

Neat Cement

bags of cement 1/2

gallons of water 4 GALS

Sand Cement

bags of cement _____

gallons of water _____

Other

Type material

Amount BENTONITE MIX

1 BAG

10. EXPLAIN METHOD EMPLACEMENT OF MATERIAL
Trim Grout

11. DATE WELL ABANDONED 7/7/07

I do hereby certify that this well was abandoned in accordance with 15A NCAC 2C, well construction standards, and that a copy of the record has been provided to the well owner.

Signature of person abandoning the well

Timothy R. Hottel

Date 7-9-2003

WELL LOCATION: Draw a location sketch on the reverse of this sheet, showing the direction and distance of the well to at least two (2) nearby reference points such as roads, intersections and streams. Identify roads with State Highway road identification numbers.

Submit original to the Division of Water Quality, Groundwater Section, one copy to the owner within 30 days from completion of abandonment.

GW-30 Revised 12/99

WELL DIAGRAM: Draw a detailed sketch of the well showing total depth, depth and diameter of screens remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.

Well #1
(Well No. 28C)

